



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,244	08/22/2006	Anatoly Ivanovich Grigoriev	ZAO0101PUSA	1668
22045	7590	08/05/2009	EXAMINER	
BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			LONG, ROBERT FRANKLIN	
		ART UNIT	PAPER NUMBER	
		3764		
		MAIL DATE	DELIVERY MODE	
		08/05/2009	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/598,244	GRIGORIEV ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Robert F. Long	3764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 19 June 2009.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 2-16 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 2,4,6 and 9-13 is/are rejected.  
 7) Claim(s) 3,5,7,8 and 14-16 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____.   | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/19/09 has been entered.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "coordinate net" in claims 8 and 16 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**Claims 8 and 16** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The phrase on page 5 of the specification and in claims 8 and 16 - "a coordinate net is applied to the surfaces of all the pads, making it possible to register the fixation points and direction of the pulling force" is not clear as to what a "coordinate net" is and how the "coordinate net" is being "applied to the surfaces of all the pads to register fixation points and direction of the pulling force". Appropriate action is required.

### ***Claim Objections***

**Claim 7** is objected to because of the following informalities: The phrase “two loop bands one of these has the hinges facing up and the other of these – down” is missing a transition word. Consider reciting the transition word “where” in the phrase “two loop bands *where* one of these has the hinges facing up and the other of these – down”. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 2, 4, 6, 9-13,** rejected under 35 U.S.C. 103(a) as being unpatentable over **Koscieleny et al. (US 7153246 B2) in view of Senegal (US 20070083975 A1).**

**Regarding claims 2, 4, 6, 9-13,** a device for forced change of a user's posture and producing an increased load on the locomotor apparatus, 14, (Abstract, column 2,

lines 49-67) the device comprising: a pair of shoulder pads (top of vest 16, figure 1), a pelvic pad, (pant garment 18) a pair of knee pads (knee supports 20) and a pair of foot pads, (foot supports 22), all interconnected by a plurality of loading elements; (column 4, lines 50-67, figures 1-7), a breast pad arranged on the thoracic part of the trunk and connected to the shoulder pads by use of self-locking buckles (hook-and-pile fasteners 40), forming a vest tightly fitting on the user's body (vest 16, *Abstract*).

Koscienly et al. states “*fasteners, such as hook-and-pile fasteners 40 on one side, and similar fasteners 42 on the opposite side so that, with the vest 16 positioned on the patient as shown in FIG. 1, the fasteners 40 are detachably secured to each other below one arm of the patient while, similarly, the fasteners 42 are detachably secured to each other around the other arm of the patient*” (column 2, lines 49-67),

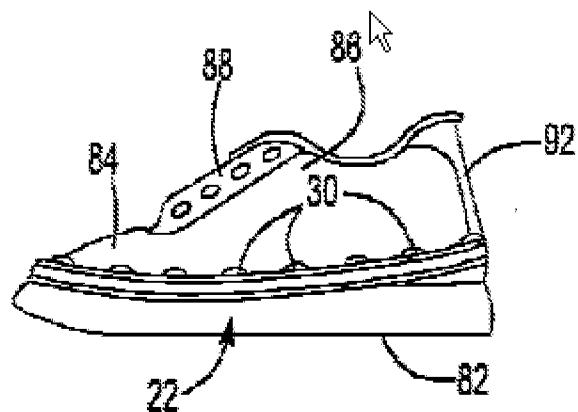
wherein each loading element is an inextensible adjusting band (band 28) and elastic tie (end 32) without residual deformation attached to the band, the tie having an initial length, wherein both the breast and pelvis pads have sewed-in load-bearing bands with buckles (attachment members 30) for interlocking of the breast pad to the pelvis pad, the pads designed so that they can be individually fitted on the user's body using of additional attachments, the adjusting bands of the loading elements rigidly attached to the front, side and rear surfaces of the breast and pelvis pads and the ends of the adjusting bands are provided with buckles and hooks (nodes 34, figure 7 and attachment members 30, column 3, lines 32-40); and wherein the pair of knee pads (knee support 20) are bandages that can tightly fit around a knee joint (encircle the knee, figure 5), an upper quarter of the shin-bone and a lower quarter of the hip (view

figure 1), each knee pad having hinges (attachment members 30/fasteners 56/58) arranged on the bandage in the plane of the knee joint to accommodate the adjusting band (band 28), (column 4, lines 10-26).

Koscienly et al. states "*Each knee support 20 is constructed from a flexible, but non-elastic, material and includes an opening 60 which is aligned with the patient's kneecap. Fasteners 56 on one side of the knee support 20 are detachably secured with fasteners 58 on the opposite side of the knee support 20 so that the knee support 20 encircles the patient's knee*", (column 4, lines 10-26, figures 1-7).

and where the foot pads are in the form of shoes (shoe support 22 figure 3) and a plurality of hinges extend from the shoes (attachment members 30), the hinges being capable of attaching to the elastic ties, and the step between the hinges on one side of the shoe is about 10 % of the shoe sole length, fabric strip on the perimeter (support 82) which wraps around the foot, (column 4, lines 27-50, figures 1 and 3).

View figure 3 below for step spacing between the members 30 being a total of 9 making the spacing almost 10% and support 82 able to wrap around the foot),



Koscienly et al. teaches adjusting the tension of the bands 28 and positioning the bands for the desired posture tension points (*column 3, lines 41-49, figures 1-7*).

Koscienly et al. states “*The multiple attachment members 30 on both the vest 16 and pant garment 18, together with the adjustable elastic bands 28, allows the vest 16 to be **adjustably secured under tension to the pant garment 18** with a wide range of variability. Consequently, by varying not only the number of bands 28, but also their attachment points between the vest 16 and pant garment 18, the posture of the patient 12 can be easily and accurately adjusted*”, (*column 3, lines 41-49, figures 1-7*).

Koscienly fails to disclose the step spacing being less than 10% and wherein the device is additionally provided with three belts, each belt having two self-tightening locks designed to enable locating the first belt of these belts along the edges of the costal arch, the second belt on the waist and the third belt on the user's huckle-bones, each belt also having a fabric fastener on the interior surface of that part of the belt, which is arranged on the back surface of the user's body, the mating parts of the fastener located on the breast and pelvis pads; and if the tie is extended, creates a

force of at least 4 kg, and where the ratio between the lengths of the adjusting band and elastic tie of each loading element being selected such that the maximum elongation of the elastic tie is at least 50 % of the initial length;

Koscienly also fails to disclose the pleats fitted with n zip fasteners (n being not less than 2), which provide n+l standard sizes of the breast and pelvis pad.

Senegal teaches a similar wearable vest type suit for modifying a human posture that has two belt webbing (webbing 18a, 18b) with a fastener located on the breast and pelvis, vest 10 (page 13, [0051], figures 1-11) and teaches using a plurality of zippers (portions 28/30) as attachment means, (page 13, [0051], figures 1-11).

Senegal states “*hook and loop fastening system is shown, in other implementations, the end portions 28, 30 can be removably attached to each other using other, or additional, fastening mechanisms, such as conventional buttons, snap buttons, one or more zippers, string or lace, clips or other conventional fastening mechanisms having two or more matable portions allowing for easy attachment to and detachment from each other*” (page 13, [0051], figures 1-11).

It would have been obvious for an exercise artisan to implement the two webbing belts 18/18a of Sengal into Koscienly et al.'s motor therapy suit to form three belts since doing so would provide additional support, additional restraint attachment parts, and a better fitting suit. It would have been obvious for an exercise artisan to have a step spacing of less than 10% on the shoe for the desired tension along the foot

In regards to the tension when tie is extended, creates a force of at least 4 kg, and where the ratio between the lengths of the adjusting band and elastic tie of each

loading element being selected such that the maximum elongation of the elastic tie is at least 50 % of the initial length, Koscieleny teaches varying the force, ***adjustable elastic bands 28, allows the vest 16 to be adjustably secured under tension to the pant garment 18 with a wide range of variability (column 3, lines 41-49).***

Here it would have also been obvious for an exercise artisan to implement the 4 kg. range of force with a maximum elongation range of 50% for the desired exercise regimen or therapy regimen and obtain the optimal range of elongation of the band for resistance and/or longevity of the band due to limited stretching/elongation.

#### ***Allowable Subject Matter***

**Claims 3-5, 7, and 14-15,** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Claims 8 and 16** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments, see remarks pages 6-8, filed 04/22/09, with respect to the "continuous loading" ability of the applicants loading elements are not disclosed nor taught in the prior art of record and the dynamometric tape that is attached to the adjusting bands and moves with the bands and coincide with the body of the user

during movements, without additional impact on the user is not disclosed nor taught in the prior art of record. Since Koscielny et al. and Senegal fail to teach, provide, or suggest an objective system of measurement and feedback for each loading element that may move with the user along with a dynamometric tape, the remarks have been fully considered and are persuasive. The rejection of claims 3, 5, 7-8, and 14-16 has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of a drawing objection, 112 rejections, and claim objections set forth in this Office action that would be allowable if appropriate corrective action is taken.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. **(US 6171274 B1) - Suit having suspender ends for attaching shorts and a mini-shirt through a tensiometer where the mini-shirt includes a front zipper.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert F. Long whose telephone number is (571)270-3864. The examiner can normally be reached on Monday-Friday (7:30-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LoAn Thanh can be reached on (571) 272-4966. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert F Long/  
Examiner, Art Unit 3764

/LoAn H. Thanh/  
Supervisory Patent Examiner, Art Unit 3764